



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
BIN C15700
Seattle, WA 98115-0070

Refer to:

OSB2001-0095-IEC

October 24, 2001

Leslie A.C. Weldon
Forest Supervisor
Ochoco National Forest
P.O. Box 490
Prineville, Oregon 97754

Barron Bail
Acting District Manager
BLM-Prineville District
P.O. Box 550
3050 NE 3rd Street
Prineville, Oregon 97754

Re: Endangered Species Act Section 7 Informal Consultation and Magnuson-Stevens Act Essential Fish Habitat Consultation on Programmatic Ongoing and Proposed Actions Affecting Middle Columbia River Steelhead on the Deschutes and Ochoco National Forests and Prineville District BLM in the Deschutes River Basin, and the Portion of the Ochoco National Forest in the John Day River Basin

Dear Ms. Weldon and Mr. Bail:

This responds to your May 1, 2001, joint letter requesting programmatic consultation on the effects of ongoing and proposed actions by the Deschutes (DNF) and Ochoco National Forests (ONF) and the Deschutes Resource Area (DRA) of the Prineville District of the Bureau of Land Management (PBLM) on Middle Columbia River (MCR) steelhead (*Oncorhynchus mykiss*) in the Deschutes River basin, and the portion of the Ochoco National Forest in the John Day River basin. A biological assessment (BA) which programmatically addressed actions of the DNF, ONF (Deschutes and John Day basins), and the PBLM in the Deschutes River basin and the effects of those actions on terrestrial and aquatic species for the period May, 2001, to May, 2003, accompanied the May 1 letter.

MCR steelhead were listed as threatened under the Endangered Species Act (ESA) on March 25, 1999 (64 FR 14517). The NMFS designated critical habitat for MCR steelhead on February 16, 2000 (65 FR 7764) and applied protective regulations to MCR steelhead under section 4(d) of the ESA on July 10, 2000 (65 FR 42422).

On the ONF, MCR steelhead designated critical habitat is located only in the Trout Creek Headwaters (HUC 1707030706), Hay Creek (HUC 1707030707), and Mud Springs (HUC 1707030709) watersheds in the Deschutes River basin, and in the Middle South Fork (HUC 1707020112), Lower South Fork (HUC 1707020113), Upper Middle John Day (HUC 1707020103), Rock Creek (HUC 1707020115), Mountain Creek (HUC 1707020117), Bridge Creek (HUC 1707020430), and Bear Creek (Bridge)(1707020431) in the John Day River basin. There are no MCR steelhead or designated critical habitat for MCR steelhead on the DNF,



because all DNF lands are upstream from Pelton Dam on the Deschutes River. Pelton Dam remains a migration barrier to anadromous salmonids in the Deschutes River basin. On the PBLM lands in the Deschutes River basin, MCR designated critical habitat is located in the Lower Deschutes up to Pelton Dam (HUC 17070306) and Trout Creek (HUC 17070307).

This letter also serves as consultation for Essential Fish Habitat (EFH) pursuant to section 305 (b) of the Magnuson-Stevens Fishery Conservation Management Act (Magnuson-Stevens Act) and implementing regulations at 50 CFR Part 600. All streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in the Deschutes basin, except those waters in the Little Deschutes, Upper Crooked, and Beaver-South Fork 4th Field watersheds, are designated EFH for chinook salmon (*O. tshawytscha*). The Upper Crooked and Beaver-South Fork watersheds are above Prineville Reservoir. Also, all waters in the portion of the John Day basin covered in this consultation are designated chinook salmon EFH.

In summary, there are no MCR steelhead or designated critical habitat for MCR steelhead on DNF administered lands. All waters on DNF administered lands are designated EFH, except the Little Deschutes River and its tributaries. On lands administered by the ONF, MCR steelhead and designated critical habitat for MCR steelhead is limited to the Trout Creek watershed and the portion of the Forest in the John Day River basin, and all waters on ONF administered lands are designated EFH, except those above Prineville Reservoir. On lands administered by the PBLM, MCR steelhead and designated critical habitat for MCR steelhead is limited to the lower Deschutes River (below Pelton Dam) and its tributaries, including Trout Creek. All waters on PBLM administered lands are designated EFH, except those above Bowman Dam (Prineville Reservoir).

Activities on PBLM land which are likely to adversely affect (LAA) MCR steelhead or their critical habitat have been addressed in previous consultations. PBLM activities in the Range Management program were previously addressed in the NMFS' January 2, 2001, biological opinion and the NMFS' March 15, 2001, amendment of terms and conditions in the January 2, 2001 biological opinion. PBLM activities in the Recreation program were previously addressed in the NMFS' August 9, 2000 biological opinion. PBLM activities in the Road Management program, guide and outfitter permits (Special Uses Program), and steelhead spawning ground surveys (Fisheries Program) were previously addressed in the NMFS' July 28, 1999, biological opinion; while trail and campground maintenance (Recreation Program) were previously addressed in the NMFS' June 23, 1999, concurrence letter.

This consultation is undertaken pursuant to section 7(a)(2) of the ESA and its implementing regulations, 50 CFR Part 402. This programmatic consultation does not address specific projects, but rather focuses on general measures to minimize effects to listed salmonids in the form of Project Design Criteria (PDC). Specific PDC, in addition to already existing direction, were developed by the DNF and ONF and the interagency consultation Level I Team. PDC are divided into two types: Criteria I and Criteria II. Criteria I must be used by the action agency (i.e., ESA requirements, current management direction, and standards and guidelines from the action agency LRMPs). Criteria I aid in the conservation and recovery of listed, proposed, and

candidate species using current management direction. In contrast, Criteria II may in some instances be discretionary by the action agency. Criteria II specifically address dispersed camping and road density as they relate to watershed condition, seasonal road use and water draft sites as they relate to sediment, and grazing as it relates to riparian vegetation. Criteria II will apply in areas where these activities are a concern relative to aquatic health. Criteria II further reduce and/or negate the adverse effects of any project which “may affect” listed species. During the May 2001 to May 2003 field seasons (May-September), the Level I Team will conduct an early-August annual field review of projects to assess the implementation and overall effectiveness of the PDC. Additionally, prior to the implementation of specific NLAA actions, the DNF, ONF, and PBLM will submit to the Level I Team a project form and a biological evaluation. Finally, the DNF, ONF, and PBLM will submit a report to NMFS summarizing the results of monitoring conducted to assess the implementation and effectiveness of PDC.

The actions subject to this consultation are within designated critical habitat for MCR steelhead on the ONF (Trout Creek Headwaters, Hay Creek, and Mud Springs in the Deschutes basin; and the Middle South Fork, Lower South Fork, Upper Middle John Day, Rock Creek, Mountain Creek, Bridge Creek, and Bear Creek (Bridge) in the John Day River basin.). In the May 1, 2001, letter and accompanying BA, the DNF, ONF, and PBLM determined that, when PDC described in the BA are fully implemented, all actions covered in the BA “may affect, but are not likely to adversely affect” (NLAA) MCR steelhead or their designated critical habitat.

ONGOING AND PROPOSED ACTIONS

The PDC, which will apply to the categories of ongoing and proposed actions on the DNF, ONF, and PBLM described below, which may affect MCR steelhead habitat between May 2001 and May 2003, can be found in Attachment 1. NMFS concurs that actions within these categories which meet all applicable PDC will be NLAA or have no affect on MCR steelhead or their designated critical habitat. For those projects which do not meet all applicable Criteria I and II, there are two possible scenarios. First, if the action agency biologist finds that the project meets all applicable Criteria I, and those Criteria II that are not met do not constitute an adverse affect, the biologist documents the rationale for a NLAA determination in the biological evaluation. The biological evaluation is taken to the Level I Team, and if concurrence is gained, the biologist will complete a project monitoring form, attach it to the biological evaluation, and the action agency will request written concurrence from NMFS. Second, if the action agency biologist finds that the project does not meet all applicable Criteria I, or the project meets all applicable Criteria I, but does not meet Criteria II to the point that implementation of the project would constitute an adverse affect, or if concurrence from the Level I Team is not gained on a proposed NLAA determination, then the project will be considered LAA MCR steelhead or their designated critical habitat, and formal consultation with NMFS will be requested under separate cover.

Silviculture. Silvicultural activities planned through May 2003 are pre-commercial thinning, animal damage control, prescribed fire, tree planting, scalping around newly planted trees,

placing mulching pads around trees, fertilizing small experimental plots, tree improvement activities (planting, pruning, thinning, etc.) at established seed orchards and evaluation plantations, and soil tilling or subsoiling.

Timber Sales. The commercial timber sale program includes the harvest and sale of live, dead, and/or dying trees. Timber sale activities can occur year round on the DNF, ONF, and PBLM. Riparian habitat conservation areas¹ (RHCAs) are protected by avoiding operations in these areas. Treatment is allowed in RHCAs, if the treatment can be demonstrated to benefit the riparian resource (riparian management objectives), meet the PDCs, and therefore have no short-term adverse effects. No landings will be located in RHCAs.

Logging operations are carried out with a variety of different systems. No ground-disturbing, ground-based machinery use will occur in RHCAs. Hand felling with chainsaws and ground-based mechanized feller bunchers or processors are common outside of RHCAs. Yarding systems include cable skyline systems with either one end or full suspension requirements, ground-based systems including rubber tire or track mounted skidders and forwarders, and helicopter-based yarding.

Commercial timber sales generally use the existing transportation network for harvest access and haul routes. Some construction of temporary roads and reconstruction of existing roads occurs. Temporary roads will be hydrologically closed (i.e., culverts will be pulled and drain dips constructed) after the sale. On occasion, closed roads may be opened to facilitate harvest access. Road maintenance including pre-haul, ongoing during haul operations, post-haul, and related erosion control structures/methods are a part of the harvest activity to ensure that roads are prepared, maintained during haul, and put into a suitable condition after operations are concluded.

Post-harvest work within timber sale areas can include a variety of efforts to clean up harvest units and mitigate harvest impacts. Various types of fuel treatment methods are used (hand-piling, tractor piling, lop and scatter). There is some preparation of harvest units for post-harvest burning, which may include fireline construction (hand/tractor). No firelines will be constructed in RHCAs. Some erosion control work may also be initiated to deal with skid trail restoration or landing rehabilitation.

Water/Soil/Fish/Wildlife. This program consists of a variety of habitat enhancement, improvement, rehabilitation, and restoration activities. Activities under this program will be

¹ Riparian Habitat Conservation Areas as defined in PACFISH for fish-bearing streams consist of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet, including both sides of the stream channel), whichever is greatest. For permanently flowing non-fish-bearing streams the description is the same except the requirement is one site-potential tree height or 150 feet of slope distance. For intermittent streams in key watersheds it is one site-potential tree height or 100 feet slope distance.

construction and placement of a variety of structures, thinning, prescribed fire, snag creation, brush piling, road closures, water developments, planting, seeding, fertilization, salting, fencing, soil tilling, surveying, quarry restoration, culvert replacement/removal on non-fish bearing streams, bioengineered bank stabilization, instream structure placement, turkey stocking, and beaver reintroduction. Instream structure placement consists of falling hazard trees into streams adjacent to recreational facilities and roads, and yarding logs into a stream with a chainsaw wench. No ground-based machinery would be used to do instream work.

Road Management. Activities under this program include: Road maintenance, including; blading road surfaces; cleaning/reestablishing relief ditches; brushing road sides; cattle guard cleaning, replacement, and installation; installing and maintaining drainage structures; sign maintenance; spot rocking; dust abatement with water, lignin, marloc, magnesium chloride, and Road Coat; stabilization of surface aggregate with clay binders; chip sealing; asphalt patching; bridge maintenance; slough removal; crack sealing; shoulder restoration with gabion or geotextile; rip rap and gabions in areas away from critical habitat with minimal aquatic concerns; culvert replacement on non-fish bearing streams; subgrade reinforcement; and snow removal. Road construction and reconstruction include road relocation, excavation/embankment, asphalt paving, aggregate surfacing, culvert installation on non-fish bearing streams, bridge reconstruction/construction, shoulder widening with gabion installation and geotextile reinforcement, drainage structure construction, slash disposal, slope failure repair, inactivation (closure), decommissioning (obliteration), excavation of waste water storage facilities, and water developments. Excluded from this consultation are activities which involve increased soil compaction or the removal of vegetation using ground-based machinery within RHCAs, activities which disturb designated critical habitat, and activities which remove streambank vegetation resulting in instability. Dust abatement using lignin, marloc, magnesium chloride, and Road Coat will not occur on roads within 25 feet of occupied MCR steelhead habitat.

Range Management. The range management program consists of permitted grazing of domestic sheep, cattle, horses and the management of a population of wild horses. Livestock will be excluded from streams with steelhead spawning from February 15th (when spawning starts) to July 15th (when fry have emerged from the gravel). There are 82 grazing allotments on the Ochoco NF and Crooked River National Grassland, 7 active allotments on the Deschutes NF, and more than 400 allotments on the Prineville BLM. Allotment use can occur year round on BLM managed land, from April through October on the two National Forests, and from April through November on the National Grassland. The timing and length of grazing in individual allotments varies. This variation is due to the season of use, rotation schedule, and administrative objectives. Other aspects of the grazing program include maintenance of existing structures, juniper thinning, prescribed fire, seeding, fencing, installation of ponds/guzzlers, spring developments, and trough installation.

Minerals. The minerals program consists of locatable, leaseable, and salable mining, quarries, recreational extraction, and drilling operations. Sites occur mostly in uplands, however, a few sites are located in RHCAs. Quarries are numerous across the DNF, ONF, and PBLM. These sites produce salable mineral materials, such as decorative stone, rip rap, and aggregate rock.

Quarries are used mostly for road maintenance and construction needs. Quarry activity occurs year round. The leaseable program on the ONF consists of leased acres for oil and gas exploration and development. No proposals have been offered for active exploration and there are no active developments. The active leaseable program on the Deschutes NF involves geothermal projects on the west flank of Newberry Volcano. Recreational extraction includes rock-hounding, gold panning, and dredging. Dredging is not allowed where potential spawning or rearing habitat occurs. New exploration proposals be consulted on separately.

Special Forest Products. Special forest products may include, but are not limited to, post and poles, boughs, cones, transplants, Christmas trees, mushrooms, and firewood. Permits for special forest products are issued annually. Special forest product collection and harvesting is generally prohibited in active timber sale areas, RHCAs, developed campgrounds, old growth areas, research natural areas, and areas signed as Sensitive Forest Resources.

Recreation. The recreation program includes a variety of activities to maintain and improve recreational opportunities. The program includes developed campgrounds, day-use picnic areas, trailhead operations and maintenance, trail reconstruction and maintenance, and dispersed recreation. Activities associated with developed campgrounds, day-use picnic areas, and trailheads include clearing vegetation and debris from campsites, parking areas, and roads; cleaning and maintaining pit toilets, collecting and hauling garbage, hazard tree removal, placement of signs and barrier posts, maintenance and improvement of boat ramps, painting structures, and improvement of facilities. Activities associated with trails include clearing vegetation and wind-thrown trees, improving drainage by installing water bars, protecting stream and riparian area crossings by constructing footbridges of logs or rock, and relocating trails out of sensitive areas. Activities associated with dispersed recreation include driving, sight-seeing, camping, fishing, hunting, wildflower viewing, bird watching, horseback riding, off-highway vehicle use, mountain biking, and cross-country skiing. A high percentage of dispersed recreation occurs in or adjacent to riparian areas and meadows.

Fire Management. Activities under this program include wildfire suppression, prescribed fire, and mechanical fuels treatment. Wildfire suppression may include the use of hand crews or bulldozers to construct firelines, helicopters or airplanes for retardant or water drops, felling of hazard trees, and the use of pumps and engines to provide water². Prescribed fire is used to reduce naturally-accumulated and management activity fuels. Burning of activity fuels typically occurs during winter, spring, and fall. Handcrews, off-highway vehicles, helicopters, and fire engines are used to ignite and contain prescribed fires. Pile burning is another form of activity fuels treatment. Mechanical fuel treatments consist of using bulldozers and grapple pilers to concentrate fuels for disposal, and using a tractor or small bulldozer to mow brush and small conifers.

² National Marine Fisheries Service, *Juvenile Fish Screen Criteria* (revised February 16, 1995) and *Addendum: Juvenile Fish Screen Criteria for Pump Intakes* (May 9, 1996)(guidelines and criteria for migrant fish passage facilities, and new pump intakes and existing inadequate pump intake screens) (<http://www.nwr.noaa.gov/1hydroweb/ferc.htm>).

Special Uses and Lands Programs. The special use and lands programs consist of permitted uses of federally managed lands including whitewater events, rock climbing, black powder shoots, triathlons, outfitter/guide operations, group use, hazard tree removal, maintenance of resorts and camps, installation and maintenance of power and telephone lines, and installation and maintenance of communication sites.

Weed Management Program. The weed management program involves developing and implementing prevention and control measures to eradicate or gain control over the establishment and spread of selected noxious weed infestations. Manual, biological, chemical, and prescribed burning methods are used. Manual methods include hand pulling plants or clipping seed heads. Biological methods involve the introduction of insects known as bio-control agents, natural enemies of specific weed species that feed on specific parts of the plant. Insects used as bio-control agents have been tested and approved by the USDA Agricultural Research Service. No herbicides will be applied in subwatersheds occupied by listed steelhead or containing critical habitat.

ENDANGERED SPECIES ACT

The NMFS concludes consultation on the previously described NLAA programmatic actions with this concurrence letter, and remains optimistic that proper PDC implementation will help expedite this and future programmatic consultations. Review by the Level I Team found the programmatic actions to be consistent with PACFISH and existing Land and Resource Management Plan (LRMP) direction. This consultation does not replace those biological opinions previously completed on “likely to adversely affect” actions. Applicable project design criteria developed by the Level I Team to address the above categories of actions will be implemented for each project category that may affect MCR steelhead. These criteria are described on pages 54-57 and listed on pages 62-66 and Appendix I of the BA, and attached to this concurrence letter.

NMFS concurs with the DNF’s, ONF’s, and PBLM’s determination that the ongoing programmatic actions are not likely to adversely affect MCR steelhead or their designated critical habitat. NMFS’ concurrence is based on our determination that: (1) All programmatic actions are being and shall continue to be implemented such that they are consistent with PACFISH and LRMP direction, and all relevant PDC listed in the BA; (2) the PDC have been designed by the DNF, ONF, PBLM, and the Level I Team to prevent incidental take of listed species and all actions will conform to the guidelines of the PDCs; and (3) all relevant aquatic habitat indicators listed in NMFS’ (1996) Matrix of Pathways and Indicators would be maintained or restored. Thus, NMFS believes there is less than a negligible likelihood of adverse effects or incidental take of MCR steelhead due to the programmatic actions.

The DNF, ONF, and PBLM must reinitiate this ESA consultation if: (1) New information reveals that effects of the actions covered by this letter may affect listed species in a way not

previously considered; (2) the actions are modified in a way that causes an effect on listed species that was not previously considered; or (3) a new species is listed or critical habitat designated that may be affected by the actions (50 CFR 402.16).

MAGNUSON-STEVENSON ACT

Public Law 104-267, the Sustainable Fisheries Act of 1996, amended the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to establish new requirements for EFH descriptions in Federal fishery management plans and to require Federal agencies to consult with NMFS on activities that may adversely affect EFH. EFH “means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (Magnuson-Stevens Act section 3). This definition includes those waters and substrate necessary to ensure the production needed to support a long-term sustainable fishery (*i.e.*, properly functioning habitat conditions necessary for the long-term survival of the species through the full range of environmental variation).

Section 305(b) of the Magnuson-Stevens Act (16 U.S.C. 1855(b)) requires that:

Federal agencies must consult with NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH; NMFS shall provide conservation recommendations for any Federal or State activity that may adversely affect EFH; Federal agencies shall, within 30 days after receiving conservation recommendations from NMFS, provide a detailed response in writing to NMFS regarding the conservation recommendations. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations of NMFS, the Federal agency shall explain its reasons for not following the recommendations.

The Magnuson-Stevens Act does not distinguish between actions in EFH and actions outside of EFH, such as upstream and upslope activities that may have an adverse effect on EFH. Therefore, EFH consultation with NMFS is required by Federal agencies undertaking, permitting, or funding an activity that may adversely affect EFH, regardless of its location.

The Pacific Fisheries Management Council (PFMC) has designated EFH for three species of Pacific salmon: chinook (*Oncorhynchus tshawytscha*); coho (*O. kisutch*); and Puget Sound pink salmon (*O. gorbuscha*) (PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC), and longstanding, naturally-impassable barriers (*i.e.*, natural waterfalls in existence for several hundred years). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14

to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of the impacts to these species' EFH from the proposed action is based on this information.

Effects of Proposed Action

The proposed action is described above. The action area includes lands managed by the DNF, ONF, and PBLM in the Deschutes River Basin, Oregon, and lands managed by the ONF in the Upper John Day River Basin, Oregon, which have been designated as EFH for chinook salmon, with the exception of the Little Deschutes River 4th field watershed and the area upstream of Prineville Reservoir. Information submitted by the Malheur National Forest in its request for consultation is sufficient for NMFS to conclude that the effects of the proposed actions are transient, local, and of low intensity and are not likely to adversely affect EFH in the longterm. NMFS also believes that the conservation measures proposed as an integral part of the actions would avoid, minimize, or otherwise offset potential adverse impacts to designated EFH.

EFH Conservation Recommendations

Pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation recommendations for any Federal or state agency action that would adversely affect EFH. The conservation measures that the ONF, DNF, and PBLM included as part of the proposed actions and PDCs are adequate to minimize the adverse impacts from this project to designated EFH for salmon. It is NMFS' understanding that the ONF, DNF, and PBLM intends to implement the proposed activity with these built-in conservation measures that avoid or minimize potential adverse effects. Consequently, NMFS has no additional conservation recommendations to make at this time.

Statutory Response Requirement


Please note that the Magnuson-Stevens Act (section 305(b)) and 50 CFR 600.920(j) requires the Federal agency to provide a written response to NMFS' EFH conservation recommendations within 30 days of its receipt of this letter. However, since NMFS did not provide conservation recommendations for this action, a written response to this consultation is not necessary.

Consultation Renewal

The DNF, ONF, and PBLM must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a manner that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR Part 600.920).

This concludes informal consultation. Questions regarding this concurrence letter should be directed to Scott Hoefer of my staff in the Oregon Habitat Branch at (503) 231-6938.

Sincerely,


for D. Robert Lohn
Regional Administrator

cc: Jeff Dillon, U.S. Fish and Wildlife Service
Steve Pribyl, Oregon Department of Fish and Wildlife
Tim Unterwegner, Oregon Department of Fish and Wildlife
Dan Rife, Deschutes National Forest
Jimmy Eisner, Bureau of Land Management, Prineville District Office

Attachment I

Steelhead and Chinook EFH Project Design Criteria

REFERENCES

- National Marine Fisheries Service. 1996. Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. Environmental and Technical Services Division, Habitat Conservation Branch.
- Pacific Fishery Management Council (PFMC). 1999. Amendment 14 to the Pacific Coast Salmon Plan. Appendix A: Description and Identification of Essential Fish Habitat, Adverse Impacts and Recommended Conservation Measures for Salmon. Portland, Oregon.
- U.S. Department of Agriculture (USDA) and U.S. Department of Interior (USDI). 1994. Environmental Assessment for the Implementation of Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (PACFISH). March. 72 pages plus Appendix.

STEELHEAD AND CHINOOK EFH PROJECT DESIGN CRITERIA

Listed below are Criteria I and Criteria II derived from PACFISH, INFISH, the Northwest Forest Plan, Aquatic Conservation Strategy Objectives, and the Deschutes and Ochoco National Forests Land and Resource Management Plans. These criteria focus on habitat alterations and disturbance effects. These criteria are designed to protect and maintain high channel complexity and stability, abundance and diversity of side channel habitats, water quality, low levels of fine sediment, in-stream wood and wood recruitment, natural flow regimes, and open historic migratory corridors. These criteria apply to watersheds in which steelhead trout are known or suspected to occur, as well as designated chinook EFH.

Criteria I:

- I. Large wood
 - A. Do not remove standing/down wood from water bodies, Riparian Reserves, or RHCAs unless salvage or forest health issues require treatment to meet Aquatic Conservation Strategy or Riparian Management Objectives.
 - 1. Project must meet coarse woody debris objectives within Riparian Reserves or RHCAs as determined by vegetation type within the immediate project site.
 - 2. Project must meet in-stream wood objectives established in watershed analysis. If a watershed analysis is not completed, the project will retain a minimum of 20 pieces of large wood per mile that are at least 12 inches in diameter and 35 feet in length.
 - B. Allow hazard trees that can reasonably fall into the water body to be placed in the water body to maintain fish habitat and hydrologic function.
 - 1. Hazard tree felling or placement in streams would avoid disturbance to spawning fish or spawning areas. A fish biologist would be required on site prior to implementation.
 - 2. A habitat assessment is required to maintain bull trout and chinook habitat when logs are moved for boating safety where allowed under the Metolius Wild and Scenic River Plan. The habitat assessment form will be attached to the biological evaluation.
 - 3. Hazard trees within the Riparian Reserves or RHCAs that represent an opportunity for topping for wildlife needs may be retained as snags.
 - 4. Hazard trees may be removed from Riparian Reserves or RHCAs if needed to allow for the normal operation of the recreation/special use site, or if a liability issue arises.
- II. Water Temperature
 - A. Do not allow measurable decreases in stream shade from land management activities.

- B. Do not allow measurable increases in stream temperature from land management activities that alter flow regimes.
- III. Sediment and Substrate
- A. Do not allow ground-based machinery use within Riparian Reserves, RHCAs, or within a water body that increases soil compaction or removes vegetation that exposes soil to erosion processes. Within designated campgrounds (within Riparian Reserves or RHCAs), machinery will not leave designated roads or parking areas.
 - B. Do not locate landings within Riparian Reserves or RHCAs.
 - C. Do not allow prescribed burning conditions within Riparian Reserves or RHCAs that would entirely consume logs 6 inches in diameter and 20 feet in length. This criterion is directed to protect fish habitat and proper floodplain function during high water events.
 - D. Do not construct firelines within Riparian Reserves or RHCAs.
 - E. Ignite controlled burns outside of Riparian Reserves or RHCAs (except for hand pile burning). Fires that back into Riparian Reserves or RHCAs will be coordinated with a fish biologist. Prescribed fire will not reduce ground cover that will expose soil to erosion within Riparian Reserves or RHCAs.
 - F. All hand piling and pile burning of slash in Riparian Reserves and RHCAs will occur outside of the riparian vegetation.
 - G. New temporary roads will be located outside of sediment delivery zones (as determined by soil type, ground vegetation, and slope), will meet BMPs for relief drainage, and will be hydrologically closed.
 - H. Commercial road use, including hauling/blading, will not contribute to siltation off the road.
 - I. Snow plowing will allow water/runoff to drain off road with filtration before reaching creeks.
 - J. Culvert replacements on Class III and IV streams (i.e. non-fish bearing streams) will meet BMPs in order to decrease sediment input both during and after construction activities (e.g., adequate road ditch relief, cross drains, wing wall rip-rapping).
 - K. Do not allow in-channel, in lake or shoreline digging where removal of substrate occurs or significant disruption to potential spawning or rearing habitat occurs (e.g., in-stream gravel mining or dredging).
- IV. Bank Stability
- A. Do not allow permitted activities to artificially raise or lower natural water levels for the system.
 - B. Activities will not reduce the amount of vegetative cover to the point of creating streambank instability. Generally, the threshold is 90% stable streambanks.
- V. Cumulative Effects to Watershed Condition

- A. Do not move any primary or key watershed over 25% Cumulative Harvest Area (CHA) Index or Equivalent Harvest Area (EHA). Do not increase CHA or EHA in any watershed that already exceeds 25% with these indices.

VI. Timing of Work

- A. Eliminate impacts to spawning, incubating, rearing, and migrating fish by observing seasonal operating restrictions when implementing stream channel or road maintenance work within Riparian Reserves or RHCAs.
- B. Within Riparian Reserves or RHCAs, do not allow near stream or instream work that exposes soil to erosional processes from August 15 to May 15 for bull trout and from February 15 to July 15 in steelhead waters. On BLM lands on the lower Deschutes River the timing restriction is February 15 to March 15.
- C. Exceptions to the seasonal operating restrictions for hazard tree placements would require verbal agreement from ODFW, NMFS, and/or FWS. Inspection of the stream channel for redds or adult fish will be made prior to work. Falling of trees onto redds would be avoided. A fish biologist from ODFW, the Forest Service, or BLM would be required on site prior to work being accomplished.

VII. Livestock Grazing

- A. Livestock will be excluded from streams with steelhead spawning habitat from February 15 to July 15. The Forest Service will monitor pasture entry and exit dates during the grazing season.
- B. Livestock utilization will be measured on the most palatable species within the chosen key area.
- C. The Ochoco and Deschutes Nfs will utilize the Final Range Resource Implementation Monitoring Module (3/9/2000) with the following additions:
 - 1. Monitor, at a minimum, residual stubble height on 40% randomly chosen category 1 pastures plus 35% of high priority active pasture key areas to be designated by the Level I team and Forest Service range personnel.
 - 2. Monitoring will be done twice to gather information on livestock use and effects. The first monitoring will occur on selected pastures, after the selected pasture is grazed and all stragglers are removed. The second monitoring will occur at the end of the growing season.
- D. Forest Service pasture moves will occur before the alteration condition threshold is reached or before the Forage Utilization/Stubble Height threshold is reached. This means that the stubble height should be 2, 3, or 4 inches (see below) when all cattle have been removed. Actions for moving livestock are to be documented in card three. These thresholds are:
 - 1. Terraces: The maximum allowable utilization standard on these sites is: 2-inch stubble height for early season grazing with removal date of June 30, 3-inch stubble height for pasture when livestock are moved by August 15, 4-inch stubble height for pastures with schedules allowing grazing after August 15. Move dates will be earlier on the Crooked River National Grassland because of earlier moisture regimes: 2-inch stubble height if

grazed before May 31, 3-inch stubble height if grazed after July 1. In all cases where a stream is not in satisfactory condition, a stubble height standard will be developed based on site conditions and improvement objectives. This standard will be 4 inches or greater for allotments in an unsatisfactory condition or for allotments that did not meet the above criteria the previous year.

2. Pasture moves will be adjusted if streambank alteration by livestock is approaching 10% within the key area. If this condition occurs then bank trampling will be measured, documented, and livestock will be moved from the pasture.
3. Changes in preference from herbaceous to woody vegetation.
4. Greenline vegetation: Utilization monitoring of greenline herbaceous vegetation to ensure retention of 6-inch residual herbaceous vegetation heights (e.g., stubble heights) at the end of the growing season. This does not apply to allotments grazed prior to May 1.

VIII. Fish Passage and Screens

- A. Perform work in dry channels before water is turned on in the spring.
- B. All permitted water diversions/withdrawals will have fish screens.
- C. Provide and maintain fish passage for all life stages at all trail or road crossings of existing and potential fish bearing streams when maintaining or replacing bridges and culverts.

Criteria II:

I. Watershed Condition

- A. Consider modifying or closing dispersed recreation sites or roads that are identified in the affected environment as contributing to bank instability prior to, or in conjunction with, implementing the project.
- B. If the open road density within a watershed exceeds 2.5 miles per square mile on the Deschutes NF or 3.0 miles per square on the Ochoco NF, do not allow project activities to increase open road densities. Project activities will move toward reducing road densities (i.e. hydrologically close roads) where possible, particularly in Riparian Reserves or RHCAs.

II. Sediment

- A. Control road traffic during wet periods to prevent damage to Riparian Reserves and RHCAs.
- B. Locate water draft sites to minimize adverse effects on stream channel stability, sedimentation, and in-stream flows.

III. Riparian Vegetation

- A. If the vegetation objectives cannot be met in consecutive years, reduce grazing levels or change the grazing system.